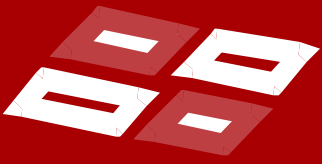




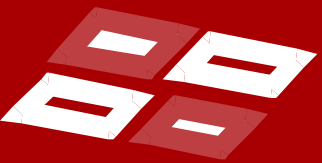
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**Regionalization of Research  
in West and Central Africa**  
***A Synthesis of Workshop Findings  
and Recommendations***



**Banjul, The Gambia**  
**March 14–16, 1994**



**Technical Paper No.4**  
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# Regionalization of Research in West and Central Africa

*A Synthesis of Workshop Findings and Recommendations*

*Banjul, The Gambia*

*March 14–16, 1994*

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**Conférence des Responsables  
de Recherche Agronomique  
Africaine**



**Special Program for African  
Agricultural Research**



**U.S. Agency for International  
Development  
Bureau for Africa**



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# Foreword

In Africa and within the international community, a shared vision of an Africa on the path to sustainable development is beginning to crystallize: a more united, more entrepreneurial, better-managed Africa, ready to participate fully in the world economy.

This optimistic vision is based on:

- recognition that long-term sustainable development in Africa requires agricultural diversification, more efficient production and marketing systems, and larger markets for African products;
- realization that recent efforts and reforms have created opportunities for significant cooperation and integration; and
- consensus on the key role of agriculture in supporting both economic growth and economic integration in Africa.

African economic development and agricultural research are linked to and influenced by changes and developments at the global level. The institutions of the 21st century must facilitate these linkages and respond to this reality. The transformation of agriculture must be viewed in this broader context.

This document synthesizes presentations and discussions from the March 1994 Banjul workshop, *Regionalization of Research in West and Central Africa*. It includes recommendations for organizing regional initiatives so that the leaders of national technology systems assume responsibility for regional programs.

At the workshop, leaders from coastal and Sahelian countries and representatives from donors, regional organizations, as well as international centers discussed the integration of na-

tional, regional, and international activities in West and Central Africa. They gained an understanding of the basic principles for successful regional collaboration and identified concrete actions for a more united effort in support of agricultural research.

We extend thanks to The Government of The Gambia for hosting the workshop. We extend special thanks to the vice president of The Gambia and the minister of agriculture who provided support and guidance for the workshop. The workshop and this document were a joint effort by the Special Program for African Agricultural Research (SPAAR), Conférence des Responsables de Recherche Agronomique Africaine (CORAF), and the U.S. Agency for International Development, Africa Bureau, Office of Sustainable Development, Productive Sector and Growth Division (USAID/AFR/SD/PSGE).\*

We acknowledge the commitment and effort of the many professionals that prepared the individual papers presented and discussed at the workshop. Their experience and knowledge greatly enriched the dialogue and informed the recommendations.

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Technology Development and Transfer  
USAID/AFR/SD/PSGE

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\* Formerly the Office of Analysis, Research, and Technical Support / Division of Food, Agriculture, and Resources Analysis (USAID/AFR/ARTS/FARA).

# Executive Summary

## The Workshop

More than 100 persons participated in the “Workshop on Regionalization of Research in West and Central Africa,” held in Banjul, The Gambia, March 14–16, 1994. Participants represented 21 National Agricultural Research Systems (NARS), 9 donor agencies, and 17 international and regional organizations. The Special Program for African Agricultural Research (SPAAR) convened the workshop, with assistance from the U.S. Agency for International Development (USAID), Conférence des Responsables de Recherche Agronomique Africaine (CORAF), World Bank, and Government of The Gambia.

In plenary and small group sessions, workshop participants assessed the opportunities for collaboration among the various initiatives promoting regionalization of research in West and Central Africa. Participants reviewed a draft framework, shared ideas for increasing information exchange across borders, and examined existing regional programs. From these sessions, several recommendations emerged.

## Regionalization of Research

Regionalization of research refers to the integration of national, regional, and international research activities. Regionalization requires the collaboration of participants to define research priorities, allocate responsibilities, and share findings. It requires the involvement of both policy makers and scientists to harmonize policies and priorities among participating systems. Experience demonstrates that collaborative regional research programs can be an efficient means of concurrently increasing the availability of tech-

nology and strengthening national research systems.

## Major Recommendations

1. A regional mechanism should be established to promote cooperation in agricultural research, to fulfill the functions of governance and coordination, and to provide liaison and linkage with similar coordinating mechanisms in other agroecological zones and Africa-wide.

By conducting national research in a regional context, countries can pool resources to address technical issues, improve information sharing, and advance regional solutions to agricultural problems. Regionalization builds on the experience of several collaborative regional research programs that bring together a critical mass of scientists and encourage the free exchange of profitable technology across national borders. At the present time, numerous regional programs are working side-by-side. Rationalizing and harmonizing their activities requires priority setting within a common agricultural policy framework.

2. The coordinating mechanism should have the following components:
  - a political apex body, consisting of the Conference of Ministers of Agriculture of West and Central Africa;
  - a technical/policy body or Directors' Committee, consisting of one person from each country in the humid and subhumid zones;
  - an executive secretariat, consisting of a



- small number of professional employees; and
- steering or technical committees, consisting of key technical persons from each institution participating in a particular initiative.
3. Three preconditions need to be met for a regional program to operate:
    - Relevant agents within member countries should have the political will to collaborate.
    - Funding agents (external donors and national authorities) should be committed to finance regionally based activities.
    - A strategic plan should provide a realistic alignment of resources with activities, with prospects to resolve priority constraints efficiently.
  4. To support and implement regional programs, institutional and funding mechanisms should:
    - be owned by national systems;
    - include processes and capacities to support strategic planning;
    - provide transparent and reliable accounting systems to document contributions of NARS to regional programs;
    - offer transparent and clear guidelines on task distribution and allocation issues; and
    - enable scientific coordination.
  5. The process of regional priority setting should begin at the national level, with national governments and research systems developing strategic plans, based on rigorous priority setting in a regional context. Regional and national priorities should be aligned with economic development objectives, technical prospects for success, and policy realities.
  6. Regional priorities should be developed at two levels:
    - at the *policy level*, across commodities and themes; and
    - at the *technical level*, involving task forces of scientists, to develop priorities within a commodity or theme.

Regional activities must complement national activities, but permit a reallocation of tasks across national programs, based on comparative advantage of the participating institutions and scientists.
  7. National, regional, and international agencies and donors are encouraged to work together to establish electronic communication among National Agricultural Research Systems, among NARS and regional and international centers, and among NARS leaders, international regional centers, and donors.
  8. Communication between technical officers and policy makers must be strengthened. The Directors' Committee should develop an agenda of policy issues and devise a strategy for using them to improve dialogue with policy makers. To assist in this effort, resources should be allocated for impact studies that demonstrate the performance levels of research.

## Follow-Up Actions

1. SPAAR will arrange a meeting of NARS' leaders to develop the conditions and modalities of setting up a Directors' Committee and to define a realistic work program. The work program should include actions to finalize and validate the Framework for Action of the Humid and Sub-Humid Zones (by September 1994) and integrate it with the Framework for Action of the Sahelian Zone.

In preparation for the meeting, SPAAR will initiate consultations between and among the various parties to address both substantive and procedural issues. The meeting will be sponsored by the Conference of Ministers of Agriculture of West and Central Africa.

2. SPAAR will assist the Directors' Committee in mobilizing the financial and intellec-

tual resources required to implement the Frameworks for Action. Additional analytical work is required on funding, regional priority setting, and impact assessment.

3. NARS, donors, and International Agricultural Research Centers (IARCs) will be proactive in pursuing the harmonization of regional collaborative activities.

# Glossary of Acronyms and Abbreviations

AFR	Bureau for Africa (USAID)
AGRIIS	Agricultural Research Information System
ARTS/FARA	Office of Analysis, Research, and Technical Support / Division of Food, Agricultural, and Resources Analysis (USAID/AFR, now SD/PSGE)
CARIS	Commonwealth Agricultural Information System
CORAF	Conférence des Responsables de Recherche Agronomique Africaine
FFA	Framework for Action (for the Humid and Subhumid Zones of Central and Western Africa)
IARC	International Agricultural Research Center
NARS	National Agricultural Research System(s)
NGO	nongovernmental organization
R&D	research and development
RESEADOC	Réseau Sahélien d'Information et de Documentation Scientifiques et Techniques
SD/PSGE	Office of Sustainable Development / Productive Sector Growth and Environment Division (USAID/AFR, formerly ARTS/FARA)
SIS	SPAAR Information System
SPAAR	Special Program for African Agricultural Research
TDT	technology development and transfer
UDEAC	Union Douanière et Économique de l'Afrique Centrale
USAID	U.S. Agency for International Development
WARDA	West Africa Rice Development Association



# 1. Introduction

## A. The Workshop

More than 100 persons participated in the "Workshop on Regionalization of Research in West and Central Africa," held in Banjul, The Gambia, March 14–16, 1994. Participants represented 21 National Agricultural Research Systems, 9 donor agencies, and 17 international and regional organizations. The Special Program for African Agricultural Research (SPAAR) convened the workshop, with assistance from the U.S. Agency for International Development (USAID), Conférence des Responsables de Recherche Agronomique Africaine (CORAF), the World Bank, and the Government of The Gambia.

## B. Objectives

The objectives of the workshop were to:

- assess the opportunities for collaboration among the various initiatives promoting regionalization of research in West and Central Africa;
- develop a framework to increase the involvement and leadership of national research system policy makers in collaborative regional research programs;
- develop a framework or forum to increase information exchange across borders and programs within the subregion;
- improve understanding of the strategic directions that are being taken at the regional level to improve and sustain the flow of profitable and sustainable technology; and
- improve understanding of what technology is available or in the pipeline to increase agricultural productivity for selected commodity systems.

## 2. Background

Leaders of agricultural technology development and transfer systems in the West and Central Africa subregion are engaged in efforts to address—head on—the unique institutional and technical challenges they face to revitalize their systems, and increase the contribution of technology development and transfer (TDT) to economic growth. These efforts are being supported by a multitude of financing and implementing agents. The Banjul workshop provided an opportunity for national leaders to review approaches to regional programs and ensure accountability for resources committed to collaborative regional research programs. This section of the synthesis provides background on these topics presented and discussed at the workshop.

### A. Regionalization of Research

In a given thematic or commodity area, regionalization of research refers to the integration of national, regional, and international research activities. Regionalization requires the collaboration of participants to define research priorities, allocate responsibilities, and share findings. It requires the harmonization of policies and priorities among participating systems, and thus requires the involvement of policy makers and managers as well as scientists.

Regionalization builds on the experience of several collaborative regional research programs during the past two decades, experience that demonstrates the feasibility and efficiency of regional efforts. The programs bring together a larger number of scientists than would otherwise be present in one national system and enables them to work together on a shared agenda. Collaborative regional research pro-

grams create a critical mass of scientists and encourage the free exchange of profitable technology across national borders. At the present time, numerous regional programs are working side-by-side. Rationalizing and harmonizing their activities requires priority setting within a common agricultural policy framework.

The need for coordinated action is apparent. To meet domestic agricultural needs and compete in international markets, African countries must find ways to increase productivity, reduce costs, and improve product quality. Many National Agricultural Research Systems (NARS) share similar ecological conditions and have similar agricultural problems. Production systems often cut across national boundaries. A full understanding of many problems (for example, natural resources management) requires a multicountry perspective and more resources and manpower than any one NARS can muster. By conducting national research in a regional context, countries can pool resources to address technical issues, improve information sharing, and advance regional solutions to agricultural problems.

In the nonfarm areas of the food sector and agricultural industry (for example, processing, distribution, storage, financing, and retailing), harmonization of activities and standards is essential to achieve consistency throughout regional economies.

An analysis of experience with existing collaborative regional research programs reveals the following lessons learned:

- Collaborative regional research should be responsive to the needs of national agricultural research systems, with objectives that are firmly anchored in the national strategic

plans of participating NARS.

- National scientists should be involved in the conception and implementation of regional programs.
- Regional programs should be governed and led by national systems (not by external organizations).
- Sustaining regional collaboration requires the commitment of national systems, which can only be achieved when the NARS invest in collaboration.
- Well-designed and -executed collaborative regional research programs are an efficient means of concurrently increasing the availability and access to technology, and strengthening national research systems.

One example of the successful application of these lessons is the creation by West Africa Rice Development Association (WARDA) of task forces of national scientists to jointly implement a common set of research themes and agree on the distribution of work. Task forces were broadly endorsed at the workshop.

## **B. The Framework for Action for the Humid and Subhumid Zones of Central and Western Africa**

Economic growth in West and Central African countries is highly dependent on the sustainable performance of their agricultural sector. Sustainable performance requires increased use of profitable and sustainable technologies that can assist producers, processors, market agents and policy makers to address on- and off-farm constraints to agricultural sector modernization and transformation.

The Conference of Ministers of Agriculture of West and Central Africa and the Special Program for African Agricultural Research (SPAAR) group of donors agree that technology is a catalyst for economic development and that an enabling environment is needed to accelerate the flow of technology to and within Africa. The design of the Framework for Ac-

tion (FFA) provides a strategic agenda and a process to promote:

- technology-driven agricultural development;
- cross-country cooperation; and
- greater interaction among political and financial leaders, scientific and technological leaders, private entrepreneurs, and nongovernmental organizations (NGOs).

The FFA includes:

- the development of national research strategies (master plans) that reflect the regional dimension, respond to requirements for economic development, and are tailored to the human and financial resources available;
- the organization of a coalition of various country efforts to ensure adequate, dependable, and timely financial resources for the implementation of the agreed priority research programs;
- the improvement of the institutional structures and the enabling environment to facilitate the development and implementation of transparent management systems and the development of a culture of excellence;
- the establishment of greater accountability to both the financiers and clients of research; and
- the encouragement of pluralism in the execution of the research plan to capitalize on the comparative advantage of the public and private sectors, the academic community, NGOs, and the regional and international research institutions.

## **C. Coordination of Regional Research Programs**

In the background session on coordination of research, it was noted that the problem of coordination can be viewed from four perspectives:

- coordinating goals;
- coordinating activities and tasks;

- coordinating structures; and
- coordinating the human perspective.

Coordination must begin with shared purposes and goals for agricultural research and development (R&D). R&D goals must be clearly and explicitly related to other national development goals.

When we combine *tasks* and *activities* aimed at serving R&D goals, we may seek a commodity grouping, a process grouping, or a spatial (district) grouping. The commodity subsector approach stresses the sequencing of tasks and activities that ensure that all the elements will be in place for a technological or economic breakthrough. The process grouping looks at the task common to all commodities (e.g., seed multiplication, irrigation management, range management) and looks at the way that expanded services can be made available to new activities at incremental cost. The logic of spatial (district) grouping of tasks will depend on many factors: national policy, regional diversity, and technical requirements.

The structural elements for good coordination include establishing and maintaining management structures that facilitate interrelated decision making, programming, communication, and control. The functional agencies implementing activities should have a pattern of delegating authority, responsibility, and accountability for making operational decisions. Organizational structures should be set up so as to engage the participation, involvement, and commitment of as many as possible of the people concerned with the developmental activities.

Coordinating the human perspective requires that all individuals, at all levels, be inculcated with the importance of attitudes of willing and ready cooperation.

Lessons to draw on for the development of good coordination mechanisms of regional research programs are available from within and outside of Africa. A fundamental lesson is that good coordination is founded on a process that efficiently supports institutional evolution—

involving changing goals and structures to meet changing needs.

## D. Impacts from Agricultural Research

Studies completed in the last two years in the subregion, and elsewhere in Africa, indicate that past investments in TDT have brought positive and significant economic benefits. The studies challenge a view that was prevalent a few years ago—the view that investments in agricultural TDT were of little value. In fact, studies of past investments indicate substantial returns from investments in TDT.

Findings presented at the workshop show that before and after Africa's decade of decline (from 1970–73 to 1980–84), when economic policies were relatively open and rainfall was relatively high, significant increases occurred in per capita production and exports from Africa as a whole. Productivity gains were achieved through intensifying land use, raising output per arable hectare, reducing fallow periods, and increasing the use of labor and other inputs. Intensification has been facilitated by agricultural research into new seed varieties and agromomic methods. (These patterns are similar to those in Asia.)

Case studies of national research programs show consistently high economic returns in Africa as elsewhere. But three key differences between Africa and Asia influence research impacts and clarify priorities: higher taxation of agriculture, which transfers research benefits to the nonfarm sector; higher rural population growth, which absorbs research benefits in on-farm consumption; and a smaller size of individual countries, which makes cross-border collaboration in research more important.

Each of the three key differences between Africa and Asia calls for a modification of the traditional methods of assessing impact, developed for Asia and Latin America in the 1970s and 1980s. Methods for assessing impact should take account of government policies, population growth, and cross-border spillovers. They



should develop African capacity to assess impacts and be accountable for resources used.

### **E. Future Challenges: Trade and Technology**

Food security in West and Central Africa is a high priority. The role of trade and technology in supporting this has received considerable attention over the past decade, which has led to a redefinition of strategies toward self-reliance away from self-sufficiency approaches. It is clear that trade and other off-farm sources of income play a key role in food security. It is also clear that technology significantly influences the profitability and, in turn, comparative advantage of enterprises individuals engage in trade and generate income. The links between trade and research agendas in West and Central Africa have historically been weak. A key future challenge for regional and national technology systems is to become more informed about trade and factors influencing trade, and to align research efforts with opportunities to have broad-based impact on trade of small- and intermediate-size enterprises.

The identification of agricultural research priorities in West and Central Africa must take into account the evolution of demand for agricultural products and the pattern of comparative advantage. At present, patterns of production and trade flows are seriously distorted by: the recent overvaluation of the CFA franc and the trade policies put in place to offset some of the effects of overvaluation; protective trade

policies to promote food self-sufficiency; restrictions on regional trade because of localized rent-seeking; lack of coordination of official producer prices; and inefficient public sector marketing and fiscal appropriations. The result of these distortions has been

- a major decline in traditional exports and loss of world market share;
- poor performance regarding the substitution of local production for imports of products such as rice;
- inefficiency of production and high cost to consumers resulting from trade protection;
- waste resources associating with rent-seeking trade flows;
- lack of expansion or decline of regional trade flows based on comparative advantage; and
- stagnation of nontraditional exports.

With the implementation of programs of structural adjustment and recent policy reforms such as devaluation of the CFA franc, a number of these distortions are being eliminated. As a result, there is a need to anticipate future directions of demand for agricultural products, the potential of production to meet that demand, and the need for agricultural research. In addition, there is a need to reduce institutional constraints in such areas as savings mobilization for investment, storage and transportation, timing and quality of delivery, and administrative procedures regarding imports and exports.

# 3. Recommendations

At the Banjul workshop, participants discussed the regionalization of research in plenary and in working groups. The following recommendations were developed in working groups and reviewed in plenary.

## A. Governance and Coordination

- Research should be planned and implemented by national and regional coalitions of donors, researchers, users, and input supply agents.
- A regional mechanism should be established to promote cooperation in agricultural research, to fulfill the functions of governance and coordination, and to provide liaison and linkage with similar coordinating mechanisms in other agroecological zones and Africa-wide.
- The membership of the regional coordination mechanism should be limited to the countries of West and Central Africa whose lands lie predominantly in the humid and subhumid zones.
- The coordinating mechanism should have the following components.
  - ◆ A *political body*, consisting of the Conference of Ministers of Agriculture of West and Central Africa, should provide political authentication and validation and undertake policy coordination across the region.
  - ◆ A *technical/policy body or Directors' Committee*, consisting of one person from each country in the humid and subhumid zones, should set priorities, plan regional research, mobilize and allocate resources, coordinate research programs, liaise with research partners and external organizations, ensure financial accountability, and assess impacts. Members of this body should be selected by respective countries and empowered to represent them in matters of research policy, strategy, and resource allocation. Normally, the Director of Agricultural Research will be the member. Other members may be added to the technical/policy body, as determined by committee.
  - ◆ An *executive secretariat*, consisting of a small number of professional employees, should perform the analytical and coordinating tasks associated with fulfilling the mandate of the Directors' Committee.
  - ◆ *Steering or technical committees* should be established, as needed, with key technical persons from each institution participating in a particular initiative. New task forces or technical committees may be established by the Directors' Committee.

## B. Institutional Mechanisms to Fund and Implement Programs

- Three preconditions need to be met for a regional program to operate:
  - ◆ Relevant agents within member countries should have the political will to collaborate.
  - ◆ Funding agents (external donors and national authorities) should be committed to finance regionally based activities.

- ◆ A strategic plan should provide a realistic alignment of resources with activities, with prospects to resolve priority constraints efficiently.
- To support and implement regional programs, institutional and funding mechanisms should:
  - ◆ be owned by national systems;
  - ◆ incorporate processes and instruments to consolidate resources and efforts from multiple sources;
  - ◆ include processes and capacities to support strategic planning;
  - ◆ facilitate dialogue and interaction among NARS scientists; among NARS and IARC scientists; among donors, NARS and IARCs; and between these three groups and other relevant agents;
  - ◆ provide transparent and reliable accounting systems to document NARS contributions to regional programs;
  - ◆ be subscribed to by all members (NARS, IARCs, and others);
  - ◆ offer transparent and clear guidelines on task distribution and allocation issues; and
  - ◆ enable scientific coordination.

### **C. Strategic Planning and Priority Setting**

- The process of regional priority setting should begin at the national level.
- Regional and national priorities should be aligned with economic development objectives, technical prospects for success, and policy realities.
- Within the subregion, national governments and research systems need to develop national strategic plans, based on rigorous priority setting in a regional context.
- National decision making must include a balance of analysis (objectivity) and political process to achieve consensus.
- Regional priorities should be developed at two levels:
  - ◆ at the *policy level*, across commodities and themes; and
  - ◆ at the *technical level*, involving task forces of scientists, to develop priorities within a commodity or theme.
- Regional activities must complement national activities, but permit a reallocation of tasks across national programs, based on comparative advantage of the participating institutions and scientists.
- Donors should endeavor to align their development resources with national and regional efforts in ways that promote an efficient allocation of resources.

### **D. Technical Forum and Information Exchange**

- National, regional, and international agencies and donors should work together to establish electronic communication among NARS, among NARS and regional and international centers, and among NARS leaders, international regional centers, and donors.
- The Directors' Committee should organize an annual forum for technical exchange and dialogue on research that is generating innovations of broad regional significance. The forum could be concurrent with (or part of) a plenary meeting of the Directors' Committee. It should not replace the technical exchange meetings of individual initiatives.
- To the fullest extent possible, existing information exchange systems should be used to facilitate communication. Some of the

existing systems are: Agricultural Research Information System (AGRIS), Commonwealth Agricultural Information System (CARIS), Réseau Sahélian d'Information et de Documentation Scientifiques et Techniques (RESEADOC), Union Douanière et Économique de l'Afrique Centrale (UDEAC), SPAAR Information Systems (SIS), International Agricultural Research Centers (IARCs), and various newsletters.

- Communication between technical officers and policy makers must be strengthened. The Directors' Committee should develop an agenda of policy issues and devise a strategy for using them to improve dialogue with policy makers. To assist in this effort, resources should be allocated for impact studies that demonstrate the performance levels of research.

## 4. Follow-Up Actions

- SPAAR will arrange a meeting of NARS leaders to develop the conditions and modalities of setting up a Directors' Committee and to define a realistic work program. The work program should include actions to finalize and validate the Framework for Action of the Humid and Sub-Humid Zones (by September 1994) and integrate it with the Framework for Action of the Sahelian Zone.
  - ◆ In preparation for the meeting, SPAAR will initiate consultations between and among the various parties to address both substantive and procedural issues. The meeting will be sponsored by the Conference of Ministers of Agriculture of West and Central Africa.
- SPAAR will assist the Directors' Committee in mobilizing the financial and intellectual resources required to implement the Frameworks for Action. Additional analytical work is required on funding, regional priority setting and impact assessment.
- National Agricultural Research Systems, donors and International Agricultural Research Centers will be proactive in pursuing the harmonization of regional collaborative activities.

## Annex A

# List of Documents/Liste des Documents

Name of Document / Nom du Document	Author / Auteur
1 <i>The Africa Bureau Sustainable Financing Initiative: Program Statement</i>	USAID
2 <i>Cassava Improvement through Regional Collaborative Research</i>	R. Asiedu, A.G.O. Dixon, S.Y.C Ng, and I. Kasele, IITA
3 <i>Coalition for Change: A Framework for Action for Improving Technology Development and Transfer in the Humid and Subhumid Zones of West and Central Africa</i>	Joint Initiative of the Conference of Ministers and of SPAAR
4 <i>Compte Rendu des Activities Relatives au Theme Sante Animale</i>	Laboratoire de Recherches Veterinaires et Zootechniques de Farcha, Republic du Tchad
5 <i>Coordination of Research Issues, Experience, and Lessons from Outside Africa</i>	Howard Elliott, ISNAR
6 <i>CORAF Charter Governing the Networks and the Base-Centres Amended Version / Charte des Reseaux et Bases Centres Amendee</i>	CORAF
7 <i>Evolution du Programme Economie des Filieres de l'IER: Une Contribution a la Planification Strategique de la Recherche Agricole</i>	Bakary Sekou Coulibaly and Bino Teme
8 <i>Groupe Thematique Forets: Resume des Activities</i>	A. Moutanda
9 <i>Impact Assessment of the SAFGRAD Commodity Networks</i>	John H. Sanders, Taye Bezuneh, and Alan C. Schroeder
10 <i>The Impact of Agricultural Research in West and Central Africa: Concepts and Evidence</i>	William A. Masters and John H. Sanders
11 <i>The Impact of Agricultural Technology in Sub-Saharan Africa: A Synthesis of Symposium Findings, ARTS Technical Paper No. 3 /</i>	USAID

*L'Impact de la Technologie Agricole en Afrique Sub-Saharienne: Une Synthese des Decouverts du Symposium, ARTS Document Technique No. 3F*

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|----|---|--------------------------|
| 12 | <i>Initiative pour la Relance de la Recherche Agricole en Afrique Occidentale et Centrale: Contribution de la CORAF</i>   | CORAF                    |
| 13 | <i>Initiative pour Promouvoir la Regionalisation de la Recherche en Afrique de l'Ouest et du Centre: L'Experience de la CORAF</i>   | Ndiaga Mbaye, CORAF      |
| 14 | <i>The Maize Network for West and Central Africa (WECAMAN)</i>  | B. Badu-Apraku, IITA     |
| 15 | <i>Planning Regional Research Collaboration: The Task Force Mechanism of the West Africa Rice Development Association</i>   | Akinwunmi Adesina, WARDA |
| 16 | <i>Politiques de Recherche Agricole au Sahel: Developpement et Transfert de Technologies Dans un Environnement en Mutation Rapide—Rapport General</i>   | Josue Dione, INSAH       |
| 17 | <i>Regional Collaborative Research Program in Food Security at the Institute du Sahel</i>   | Josue Dione, INSAH       |
| 18 | <i>Review of the West and Central Africa Sorghum Research Network (WCASRN), (1985–1994)</i>   | S.K. Debrah, ICRISAT     |
| 19 | <i>A Regional Strategy for Trade and Growth in West Africa</i>  | J. Dirck Stryker         |
| 20 | <i>Scientific Evolution of CORAF: Working Document / Evolution Scientifique de la CORAF: Document de Travail</i>  | CORAF                    |
| 21 | Statement from Prof. J. A. Ekpere, Executive Secretary, Scientific, Technical and Research Commission of the Organization of African Unity (OAU/STRC), Lagos, Nigeria, to the SPAAR Workshop on Regionalization of Research in West and Central Africa: March 14–16, 1994, Banjul, The Gambia | J. A. Ekpere             |

- |  |   |
|--|---|
| 22 <i>Strategic Framework for Agricultural Recovery and Growth in the CMA/WCA Member Countries</i>   | Conference of the Ministers of Agriculture on West and Central Africa (CMA/WCA) |
| 23 <i>Strengthening African Research Capacity: SPAAR's Perspective</i>   | SPAAR Secretariat   |
| 24 <i>Sustainable Animal Agriculture in Sub-Saharan Africa: A Collaborative Research Networking Approach</i>   | E. A. Olaloku and M. Sall, ILCA   |
| 25 <i>Towards a Sustainable Future for Africa: Improved Natural Resources Management under the Development Fund for Africa, 1987 to 1993, ARTS Technical Paper No. 5</i> | USAID   |



## *Annex B*

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*Annex C*  
**Workshop Agenda**

**Workshop on Regionalization of Research  
in West and Central Africa,  
March 14–16, 1994  
and  
CORAF Annual General Meeting  
March 17–18, 1994**

**KAIRABA HOTEL  
Banjul, The Gambia**

**Chairman:** Moctar Toure

**Facilitators:** Millie Morton  
Robert Ayling  
Jan Weijenberg  
M S Diallo

**Annotated Agenda**

Objectives of the Workshop are:

- Assess the opportunities for collaboration among the various initiatives promoting regionalization of research in West and Central Africa;
- Develop a framework to increase the involvement and leadership of national research system policy makers in collaborative regional research program;
- Develop a framework or forum to increase information exchange across borders and programs within the subregion;
- Improve our understanding of the strategic directions that are being taken at the regional level to improve and sustain the flow of profitable and sustainable technology; and
- Improve our understanding of what technology is available or in the pipeline at the regional level to increase agricultural productivity for selected commodity systems.

## **Monday, March 14**

### ***Session One: Initiatives Promoting Collaborative Regional Research Approaches in West and Central Africa***

Objective: To review initiatives promoting collaborative regional research in West and Central Africa in order to identify strengths, weaknesses, and areas where cooperation can be achieved.

Moderator: Djibrill Sene

8:00–8:15 Introductory Remarks, Moctar Toure  
8:15–8:30 WCA Council of Ministers, Yunus Yusuf  
8:30–8:45 Frameworks For Action, Moctar Toure  
8:45–9:00 CGIAR Ecoregional Initiatives and Consortia, Eugene Terry  
9:00–9:15 Collaborative Regional Research Networks, Jeff Hill  
9:15–9:30 CORAF Research Networks, Ndiaga Mbaye  
9:30 BREAK

### ***Session Two: Regional Economic Integration and Implications for Research***

Objective: To examine issues affecting regional economic integration and assess the implications for research.

Moderator: A. Dartenucq

(Presentations - 20 minutes; Questions and Answers - 10 minutes.)

11:00 Strategic Framework for Regional Collaborative Efforts in the Agricultural Sector, Baba Dioum.  
11:30 The Macroeconomic Context for Regional Integration in West and Central Africa, Ousmane Badiane.  
12:00 The Demand for Agricultural Products, Comparative Advantage and The Implications for Research Priorities, Dirck Stryker.  
12:30–1:30 LUNCH

### ***Session Three: Priority Setting***

Objective: To review approaches to strategic planning relevant to establishing research priorities and linking regional and national objectives.

Moderator: J. Ekebil

(Presentations - 20 minutes; Questions and Answers - 10 minutes.)

1:30 Impacts of Research and Criteria for Priority Setting, William Masters

2:00 Commodity System (Subsector) Approaches to Strategic Planning, B. Caulibaly

***Session Four: Approaches to Coordination of Regional Research Programs***

Objective: To examine the governance and coordination mechanisms that have been used in WCA and other areas of the World to facilitate Collaborative Regional Research.

Moderator: Peter Matlon

2:30 Experience, Lessons and Issues With Mechanisms to Coordinate Regional Research Programs, Howard Elliot

3:00 Coordination of Regional Programs—Experience of and Needs for West and Central Africa, M.S. Sompo-Ceesay

***Session Five: Opening Ceremony***

3:30–5:00

**Chairman:** Hon. Omar Amadou Jallow, Minister of Agriculture

Arrival of Guests

Arrival of Ministers and Members of the Diplomatic Corps

Statement of Executive Secretary of SPAAR

Statement of Chairman of CORAF

Statement by USAID Representative

Statement from Council of Ministers for West and Central Africa

Statement from the Executive Secretary of OAU/STRC

Official Address and formal Opening by His Excellency, The Vice President and Minister of Defence, Hon Alhajie Saihou Sabally

**Tuesday, March 15**

***Session Four (cont.): Approaches to Coordination of Regional Research Programs***

Objective: To examine the governance and coordination mechanisms that have been used in WCA and other areas of the World to facilitate Collaborative Regional Research.

Moderator: Peter Matlon

8:00 Experience, Lessons and Issues With Mechanisms to Coordinate Regional Research Programs, Howard Elliot

8:30 Coordination of Regional Programs—Experience of and Needs for West and Central Africa, M.S. Sompo-Ceesay

9:00 BREAK

***Session Six: Developing Guidance For Collaborative Regional Research Programs in West and Central Africa***

Objective: To develop guidance in support of collaborative regional research activities in West and Central Africa

Participants will be assigned to work in 4 Working Groups, to work in 4 thematic areas:

- Governance & Coordination of Regional Programs, (Moderator: Gora Beye, Rap'teur: B. Ayling)
- Institutional Mechanisms to fund and implement programs, (Moderator: H.Ly Rap'teur: J. Bickersteth)
- Strategic Planning and Priority Setting, (Moderator: P. Matlon, Rap'teur: M. M. Dabo)
- Technical Forum and Information Exchange, (Moderator: M. Onanga, Rap'teur: C. Y. Prudencio)

Instructions are provided on separate sheets. Each Working Group will report out during the lunch on Tuesday. Working Groups will be made up of a mix of NARS leaders, Donors, International and Regional Organization representatives, etc. (On Wednesday, participants will be organized in the following groups to respond to recommendations: NARS Directors; Donors; International and Regional Organizations.) Each Groups will have nearly four hours (from 8:15 am until noon) to complete discussions and summarize recommendations.

9:15 Introduction to Break-Out Sessions, Moctar Toure  
9:30 Break-Out Sessions

***Session Seven: (WORKING LUNCH) Thematic Working Group Reports***

Objective: To share recommendations of each Working Group with all participants

Moderator: B. Ouayogode

NOON: WORKING LUNCH—SENEGAMBIA HOTEL MAIN RESTAURANT

Working Groups Report Out  
(Presentations - 10 minutes; Questions and Answers - 5 minutes.)

12:15 Group One Report  
12:30 Group Two Report  
12:45 Group Three Report  
1:00 Group Four Report

### ***Session Eight: The Humid and Subhumid Framework for Action***

Objective: To obtain feedback on the preliminary Framework for Action for the Humid and Subhumid Zone of West and Central Africa.

Moderator: Guy Rocheteau

2:00 Humid and Subhumid Framework For Action, Abjibola Taylor  
2:30 Linkages between the Sahel and Humid and Subhumid FFAs, M S Sompo-Ceesay  
3:00 BREAK  
3:15–5:00 Panel Response  
■ K. Golli (Cote d'Ivoire)  
■ M. Dahniya (Sierra Leone)  
■ M. Quattara (Niger)  
■ N. Massimongo (Zaire)  
■ J. Ekebil (IITA)  
■ H. Ly (Senegal)

**Wednesday, March 16, 1994**

### ***Session Nine: Review of Regional Collaborative Research Programs***

Objective: To share strategic plans and technical aspects from major collaborative regional research programs; and assess institutional characteristics of ongoing regional programs.

Moderator: Fouseni Adam

(Presentations - 30 minutes; Questions and Answers - 15 minutes.)

8:00 Food Security Presenter: J. Dione, Comment: CORAF  
8:45 Maize Presenter: Badu-Apraku, Comment: The Charles  
9:30 BREAK

Moderator: M. Dhaniya

9:45 Rice Presenter: P. Matlon, Comment: N'cho Achiayel  
10:30 Sorghum Presenter: Debrah, Comment: Dicko  
11:15 Cassava Presenter: IITA, Comment: Mobanza  
NOON WORKING LUNCH



### ***Session Ten: Working Groups Review Recommendations (Working Lunch)***

Objective: To provide a forum for various groups to work independently to review recommendations made during Tuesday's lunch. Groups will be organized as follows:

- NARS Directors and Network Coordinators (in JAMA HALL B)
- Donors (in COMMITTEE ROOM 1)
- IARCs, Regional organizations, Universities (in COMMITTEE ROOM 2)

Each group will select its own Rapporteur. The groups will have one and one-half hours to discuss the recommendations and formulate a response. Reports will be made at the closing session for the day.

### ***Session Nine (cont.): Review of Regional Collaborative Research Programs***

Moderator: Soares

(Presentations - 30 minutes; Questions and Answers - 15 minutes.)

1:30            Livestock, Presenter: Olaloku, Comment: Al Faroukh  
2:15            Agroforestry, Presenter: Bounkougou, Comment: Mountanda  
3:00            BREAK

### ***Session Eleven: Conclusions and Followup Actions***

- Objectives:
- To identify the strengths, complementarities and benefits of the regional collaborative research programs discussed in session eight and identify prospects for integration and sharing.
  - To provide a forum for NARS Directors, Donors, and International Centers and Regional Organizations to clarify their positions regarding the recommendations presented.

Moderator: Saydil M. Toure

3:15            Panel Discussion on Network Presentations  
                 N. Mbaye  
                 T. Bezuneh  
                 E.A. Addison  
                 R. Bertram  
                 C. Belem  
4:00            Luncheon Working Groups Report  
                 (Presentations - 10 minutes and 5 minutes Questions and Answers)  
5:00            Followup Actions, Moctar Toure  
5:30            CLOSING

## *Annex D*

# Regional Programs Synopsis

### **Network:**

### **Mangrove Swamp Rice Network**

#### *Countries Involved*

Guinea, Guinea Bissau, Nigeria, Sierra Leone, The Gambia

#### *Objectives*

The general objectives of the network are: to consolidate the gains achieved from improved rice varieties developed by the West Africa Rice Development Association (WARDA) for smallholders in mangrove environments; and to enhance the capacity of National Agricultural Research Systems (NARS) in the region to meet the need for sustainable increases in mangrove swamp rice production.

The specific objectives of the network are: to characterize environments in order to facilitate targeting of improved rice technologies; and to develop well-adapted, high-yielding cultivars from segregating progenies.

WARDA purifies and multiplies promising varieties and breeder seeds for distribution to NARS, extension agencies, nongovernmental organizations (NGOs) and farmers. The six countries in the network conduct varietal trials.

#### *Start-Up Time*

1990

#### *Coordinating Agency*

West Africa Rice Development Association (WARDA)

#### *Implementing Agency*

National Agricultural Research Systems (NARS)

#### *Financier*

U.S. Agency for International Development

### **Networks:**

### **African Feed Resources Network (AFRNET)**

### **Small Ruminants Research Network (SRNET)**

### **Cattle Research Network (CARNET)**

#### *Countries Involved*

Africa-wide

#### *Objectives*

The overall objective of the three networks is to encourage the development of a strong, self-sustaining, relevant and innovative research process in National Agricultural Research Systems (NARS). Specifically, the networks seek to: (1) encourage collaborative, producer-oriented adaptive research within and between NARS and regionally; (2) assist NARS to develop research methodologies; (3) assist NARS scientists in data collection, analysis, interpretation of research results, and reporting; (4) assist in the improvement of research-extension-user linkages; (5) facilitate the peer-review process in the selection of projects with potential for impact; (6) facilitate training and information exchange; and (7) assist NARS in

obtaining adequate and sustained donor funding for program implementation.

Network programs focus on three major areas.

- *Collaborative Research Programs* formulate and execute collaborative research designed to address the major constraints to sustainable animal agriculture in the existing production systems. Priority areas are identified by NARS scientists at regional meetings and biennial workshops.
- *Training and Information Exchange Programs* improve the competence of NARS scientists and technicians and facilitate scientific information exchange. Most NARS in sub-Saharan Africa have a critical shortage of trained manpower.
- *Outreach Activities* promote producer participation in collaborative, on-farm research and expedite the transfer of improved technology packages. Collaborative research programs usually involve producers in the testing and validation of technologies generated. Farm days and other outreach activities give many farmers the opportunity to observe the results of new technologies first-hand.

#### *Coordinating Agency*

International Livestock Centre for Africa (ILCA)

#### *Implementing Agency*

National Agricultural Research Systems (NARS)

#### *Financier*

International Livestock Center for Africa (ILCA)

### **Network:**

### **West and Central African Sorghum Research Network (WCASRN)**

#### *Countries Involved*

Benin, Burkina Faso, Cameroon, Central African Republic, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Chad, and Togo.

#### *Objectives*

The overall objective of the network is to improve sorghum production in West and Central Africa by concentrating on constraints having regional significance, and by linking national, regional, and international institutes to serve the region effectively. The specific objectives are to (1) increase the production of sorghum; (2) assist and strengthen national sorghum improvement programs, and contribute to their research in all agroecological semiarid zones; (3) develop improved varieties and hybrids and agronomic/management practices capable of giving higher and more stable economic yields in the semiarid environments; (4) organize and promote systematic regional testing of available and improved genetic material and technology in the semiarid zone; (5) facilitate the development of agricultural research manpower among West Africa nationals at all levels; and (6) organize regional workshops and monitor uniform yield trials through field inspections.

The activities of the network are organized and implemented around seven main areas: training, regional trials and nurseries, research projects, monitoring tours, regional workshops, visits to National Agricultural Research Systems (NARS), and steering committee meetings.

#### *Start-Up Date*

The network was conceived and approved in 1984. It became operational in 1985 when a steering committee was formed.

*Coordinating Agency*

International Centre for Research in Semi-Arid Tropics (ICRISAT)

*Implementing Agency*

National Agricultural Research Systems (NARS)

*Financier*

U.S. Agency for International Development

**Network:**

**The Maize Network for West and Central Africa (WECAMAN)**

*Countries Involved*

The network encompasses the coastal and Sahelian countries of West and Central Africa. Because funding is limited, the network focuses on eight countries where maize is an important staple: Nigeria, Cameroon, Benin, Togo, Ghana, Burkina Faso, Côte d'Ivoire, and Mali.

*Objectives*

WECAMAN was created as one of four collaborative networks under Phase II of the Semi-Arid Food and Grain Research and Development (SAFGRAD) project. The network helps national maize programs in West and Central Africa develop appropriate technologies. It aims to increase productivity, production, and income by extending appropriate technologies to farmers. National extension services, other parastatal extension agencies, and nongovernmental organizations (NGOs) work with farmers in the respective member countries. The network focuses on the savanna zone, where over 50 percent of maize is produced in the subregion. In the savanna, where rainfall is optimum, sunshine is adequate, and few disease problems exist, maize has considerable potential for

high returns to investments.

The network has six components: collaborative research projects, regionally oriented resident research, regional trials, exchange of scientific information and technologies, impact assessment, and human resources development.

Lead centers generate technologies in partnership with National Agricultural Research Systems (NARS), which test and adapt technologies.

*Start-Up Time*

1987

*Coordinating Agency*

International Institute of Tropical Agriculture (IITA)

*Implementing Agency*

National Agricultural Research Systems (NARS)

*Financier*

U.S. Agency for International Development

**Network:**

**Collaborative Group on Root and Tuber Improvement Systems Research (CORTIS)**

*Countries Involved*

Coastal West Africa

*Objectives*

CORTIS focuses on: (1) exchange and development of germplasm for improved cassava varieties (to be evaluated by National Agricultural Research Systems and refined under local conditions); (2) exchange of information through published bulletins and annual collaborators' meetings

(evaluation of research results, standardization of procedures, assessment of new research needs, and planning of future collaborative research); and (3) development of human resources through group or individualized degree and nondegree training.

#### *Start-Up Time*

CORTIS was established in 1991 as an amalgamation of two previous collaborative arrangements between the International Institute of Tropical Agriculture (IITA) and African National Agricultural Research Systems.

#### *Coordinating Agency*

International Institute of Tropical Agriculture (IITA)

#### *Implementing Agency*

National Agricultural Research Systems (NARS) in West Africa; IITA

#### *Financier*

IITA

### **Network: Regional Collaborative Research Program in Food Security at the Institute of Sahel**

#### *Countries Involved*

Sahel countries

#### *Objectives*

(1) Promote dialog between researchers and

decision makers at the national and regional levels in order to improve the quality and flow of information necessary for policy formulation and implementation on food security; (2) improve training of Sahelian researchers in research methods applicable to food security policies and strategies; (3) promote a concerted design and implementation of evolutionary studies on food security issues of regional interest by Sahelian researchers; and (4) disseminate research results on food security policies and strategies to researchers and decision makers.

#### *Goal*

Contribute to the improvement of food security for the Sahelian populations by strengthening the endogenous capacities of national research systems to conduct studies and disseminate information relevant to food security policies and strategies in the Sahel.

#### *Activities*

The activities of the program would include (1) dialog/cooperation between researchers, and between researchers and decision makers; (2) training of researchers in research methods; and (3) promotion of concerted studies in the NARS.

#### *Coordinating Agency*

Institute du Sahel (INSAH)

#### *Implementing Agency*

INSAH; Michigan State University

#### *Financier*

U.S. Agency for International Development





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Bureau for Africa  
Office of Sustainable Development  
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